



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,358	09/19/2003	William Edward Stamer	CVC-0004	8362

23377 7590 09/06/2006  
WOODCOCK WASHBURN LLP  
ONE LIBERTY PLACE, 46TH FLOOR  
1650 MARKET STREET  
PHILADELPHIA, PA 19103

EXAMINER

FEELY, MICHAEL J

ART UNIT PAPER NUMBER

1712

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/666,358	STARNER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael J. Feely	1712	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 and 44-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Pending Claims***

Claims 1-51 are pending; claims 1-19 and 44-51 are withdrawn from consideration.

### ***Previous Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. The rejection of claim 30 under 35 U.S.C. 112, second paragraph, has been overcome by amendment the claim.

### ***Previous Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The rejection of claims 20-43 under 35 U.S.C. 103(a) as being unpatentable over Nugent, Jr. et al. (US Pat. No. 5,438,109) has been withdrawn.

### ***New Claim Rejections – 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

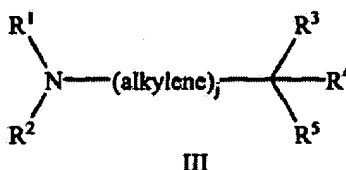
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

Art Unit: 1712

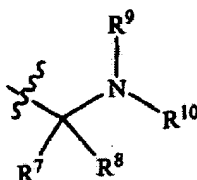
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 20-26, 28, 30-37, and 39-43 are rejected under 35 U.S.C. 102(a) as being anticipated by Kamae et al. (WO 02/081540). US 2004/0044147 is an English equivalent of this WIPO document, and it has been relied upon as an English translation document. All citations are directed towards the US publication.

Regarding claims 20-26, 28, 30-37, and 39-43, Kamae et al. disclose: (20) a polyepoxy resin composition (Abstract) comprising a compound of formula III:



wherein R<sup>1</sup> and R<sup>2</sup> are each independently alkyl or -(alkylene)-epoxyethyl; R<sup>3</sup> is alkyl, aralkyl, or aryl, wherein said alkyl, aralkyl or aryl is optionally substituted with 0-5 Z; Z is:

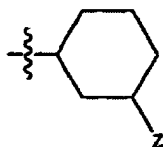


R<sup>7</sup> and R<sup>8</sup> are each independently H, alkyl or aryl; R<sup>9</sup> are each independently alkyl or -(alkylene)-epoxyethyl; j is the integer 0 or 1; provided that at least two of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup> and R<sup>10</sup> are -(alkylene)epoxyethyl (paragraphs 0038 & 0041); and a carboxylic acid (Abstract; paragraphs 0057 & 0068)

(21) wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is at least about 0.8 (paragraph 0059); (22) wherein the ratio of

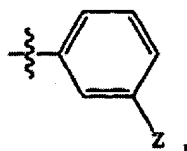
Art Unit: 1712

carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 5 (paragraph 0059); **(30)** wherein  $R^3$  is:



(paragraphs 0038 & 0041); **(23)** wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 2 (paragraph 0059); and **(24)** wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 1.5 (paragraph 0059);

**(25)** wherein said aryl is:



wherein  $R^7$  and  $R^8$  are each H, wherein Z is  $-CH_2NR^9R^{10}$ , and each of  $R^1$ ,  $R^2$ ,  $R^9$ , and  $R^{10}$  is:

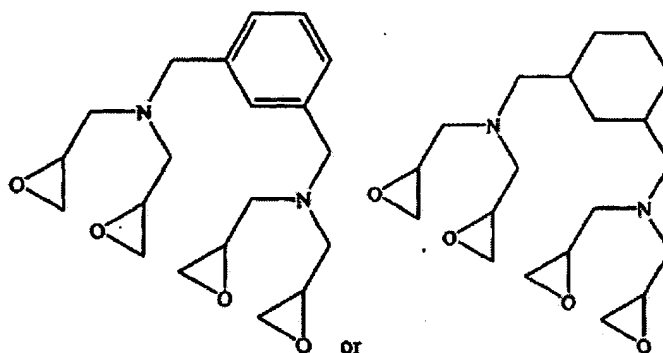


(paragraphs 0038 & 0041); **(28)** wherein said composition is substantially water soluble (*inherent of the materials set forth in the reference – see MPEP 2112.01*);

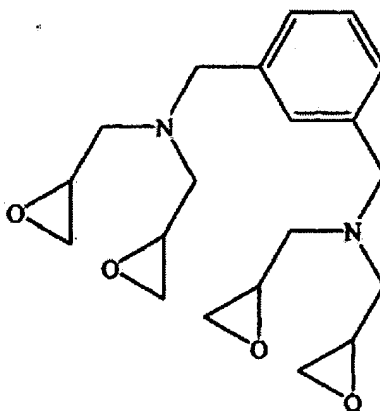
**(26)** wherein said composition is substantially water soluble (*inherent of the materials set forth in the reference – see MPEP 2112.01*);

Art Unit: 1712

(31) a coating produced from a mixture comprising: (a) the polyepoxy resin composition of claim 20; and (b) a curative (Abstract); (32) wherein the carboxylic acid is acetic acid (paragraph 0068); (33) wherein the compound of formula III of said polyepoxy resin is:

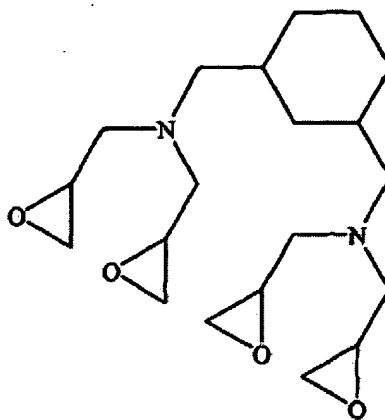


(paragraphs 0038 & 0041); (34) wherein said formula III compound is:



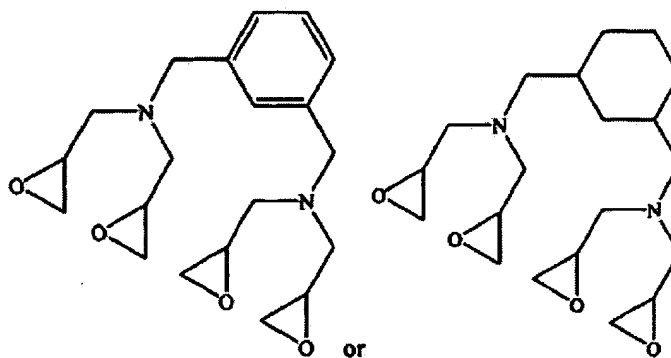
(paragraphs 0038 & 0041); (36) wherein the carboxylic acid is acetic acid (paragraph 0068); (35) wherein said formula III compound is:

Art Unit: 1712



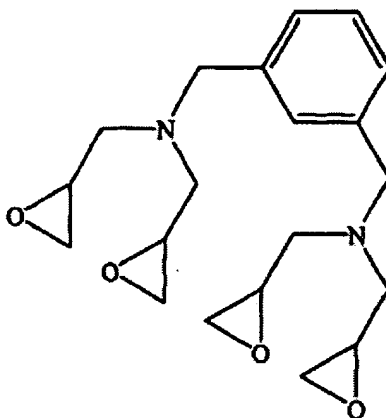
(paragraphs 0038 & 0041);

(37) a kit for forming a coating produced from a mixture comprising the polyepoxy resin composition of claim 20 (*grouping of the claimed materials inherently satisfies the generically claimed "kit"*); (39) further comprising a curative (Abstract); (40) wherein the carboxylic acid is acetic acid (paragraph 0068); (41) wherein the compound of formula III is:

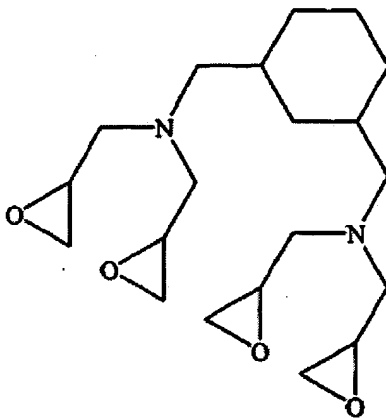


(paragraphs 0038 & 0041); (42) wherein said formula III compound is:

Art Unit: 1712



(paragraphs 0038 & 0041); and (43) wherein said formula III compound is:

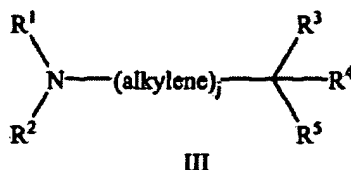


(paragraphs 0038 & 0041).

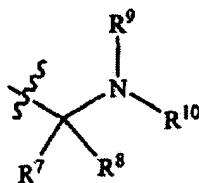
7. Claims 20-31, 33-35, 37-39, and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimoda et al. (WO 02/066536). US 2004/0059085 is an English equivalent of this WIPO document, and it has been relied upon as an English translation document. All citations are directed towards the US publication.

Regarding claims 20-31, 33-35, 37-39, and 41-43, Shimoda et al. disclose: (20) a polyepoxy resin composition (Abstract) comprising a compound of formula III:

Art Unit: 1712

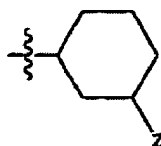


wherein R<sup>1</sup> and R<sup>2</sup> are each independently alkyl or  $-(\text{alkylene})\text{-epoxyethyl}$ ; R<sup>3</sup> is alkyl, aralkyl, or aryl, wherein said alkyl, aralkyl or aryl is optionally substituted with 0-5 Z; Z is:



R<sup>7</sup> and R<sup>8</sup> are each independently H, alkyl or aryl; R<sup>9</sup> are each independently alkyl or  $-(\text{alkylene})\text{-epoxyethyl}$ ; j is the integer 0 or 1; provided that at least two of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup> and R<sup>10</sup> are  $-(\text{alkylene})\text{-epoxyethyl}$  (paragraphs 0048 & 0051); and a carboxylic acid (Abstract);

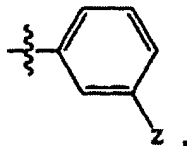
(21) wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is at least about 0.8 (paragraph 0060); (22) wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 5 (paragraph 0060); (30) wherein R<sup>3</sup> is:



(paragraphs 0048 & 0051); (23) wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 2 (paragraph 0060); and (24) wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is of about 0.8 to about 1.5 (paragraph 0060);

Art Unit: 1712

(25) wherein said aryl is:



wherein  $R^7$  and  $R^8$  are each H, wherein Z is  $-CH_2NR^9R^{10}$ , and each of  $R^1$ ,  $R^2$ ,  $R^9$ , and  $R^{10}$  is:

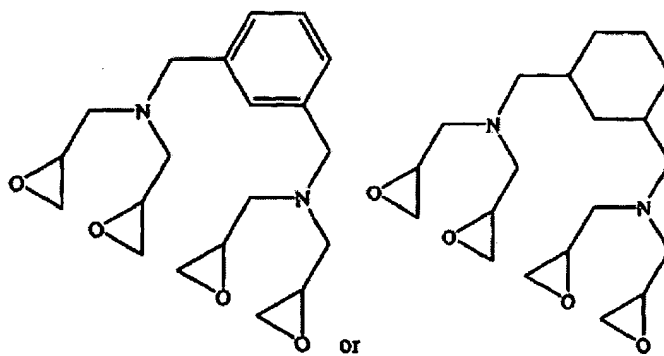


(paragraphs 0048 & 0051); (28) wherein said composition is substantially water soluble (*inherent of the materials set forth in the reference – see MPEP 2112.01*); and (29) further comprising water (paragraph 0042);

(26) wherein said composition is substantially water soluble (*inherent of the materials set forth in the reference – see MPEP 2112.01*);

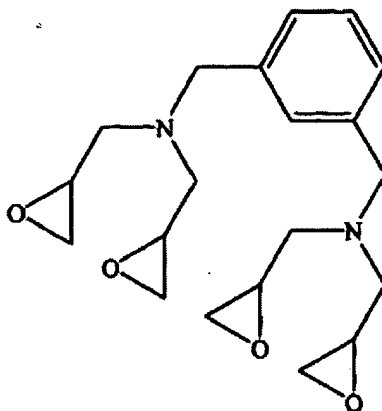
(27) further comprising water (paragraph 0042);

(31) a coating produced from a mixture comprising: (a) the polyepoxy resin composition of claim 20; and (b) a curative (Abstract; paragraph 0063); (33) wherein the compound of formula III of said polyepoxy resin is:

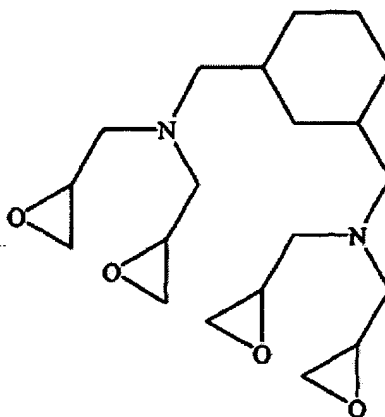


Art Unit: 1712

(paragraphs 0048 & 0051); **(34)** wherein said formula III compound is:



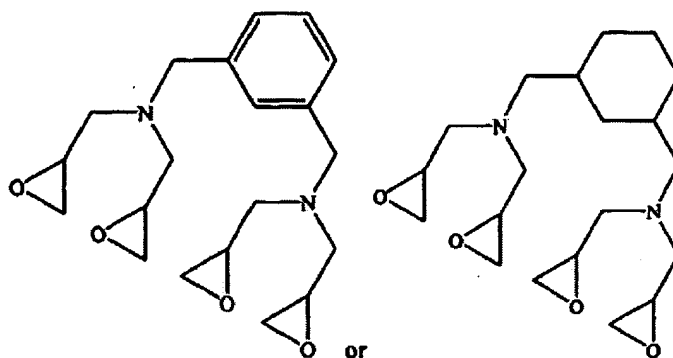
(paragraphs 0048 & 0051); **(35)** wherein said formula III compound is:



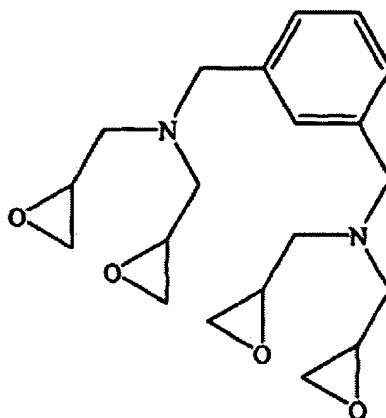
(paragraphs 0048 & 0051);

**(37)** a kit for forming a coating produced from a mixture comprising the polyepoxy resin composition of claim 20 (*grouping of the claimed materials inherently satisfies the generically claimed "kit"*); **(38)** further comprising water (paragraph 0042); **(39)** further comprising a curative (paragraph 0063); **(41)** wherein the compound of formula III is:

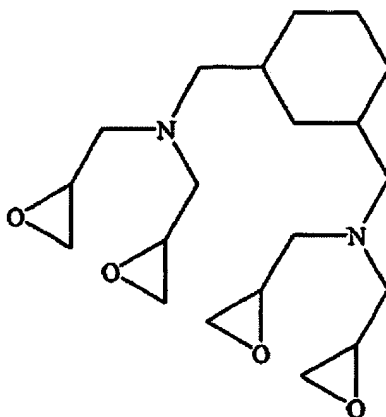
Art Unit: 1712



(paragraphs 0048 & 0051); (42) wherein said formula III compound is:



(paragraphs 0048 & 0051); and (43) wherein said formula III compound is:



(paragraphs 0048 & 0051).

***Response to Arguments***

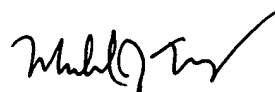
8. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael J. Feely  
Primary Examiner  
Art Unit 1712

September 4, 2006

**MICHAEL FEELY  
PRIMARY EXAMINER**